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10/500,092

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EXAMINER

CHU, KIM KWOK

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,092	Applicant(s) HIRASAKA, HISATO	
	Examiner Kim-Kwok CHU	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 24 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

2. Claims 1-6, 8 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ohta (U.S. Patent 5,991,108).

3. Ohta teaches a recording/reproducing apparatus having all of the elements and means as recited in claims 1-6 and

8. For example, Ohta teaches the following features:

(a) with respect to Claim 1, the recording/reproducing apparatus adapted for performing Read After Write operation for signals through a recording medium 82 (Figs. 4 and 9; column 1, lines 66 and 67; column 2, line 10), the recording/reproducing apparatus comprising: first distribution means 61 for distributing reproduction signals obtained from the recording medium 82 to plural channels 9 (Fig. 4; column 6, lines 33 and 34); second distribution means 51 for distributing cause signals of crosstalk signals included in the reproduction signals obtained from the recording medium 82 to plural channels 25 (two channels of recording signals are input to filter means

25); memory means of plural channels for storing, every channel, the reproduction signals and the cause signals which have been distributed to plural channels by the first and second distribution means 61, 51 (Fig. 4; signal processing means 9 and 25 contains plurality of memory means such as analog to digital converters, buffers/registers and digital signal processors); and crosstalk cancellers 25 of plural channels for generating pseudo crosstalk signals of respective channels on the basis of the reproduction signals and the cause signals of respective channels which are read out from the memory means of plural channels to cancel crosstalk signals included in the reproduction signals of respective channels, wherein, in a reproducing system, there are obtained reproduction signals of plural channels in which crosstalk signals have been cancelled every channel by the crosstalk cancellers of plural channels (Figs. 4 and 7; column 9; lines 45-52).

(b) with respect to Claim 2, the second distribution means 51 distributes and delivers binary signal series to the memory means of plural channels (buffers/registers in adaptive filter means 25) as cause signals of crosstalk signals included in reproduction signals obtained from the recording medium (Fig. 4; column 10, lines 52-56).

(c) with respect to Claim 3, the second distribution means 51 distributes and delivers multi-value signal series (recording signal is a series of multi-value signal) to the memory means of plural channels (in adaptive filter 25) as cause signals of crosstalk signals included in reproduction signals obtained from the recording medium (Fig. 4; column 10, lines 52-56).

(d) with respect to Claim 4, the second distribution means 51 distributes and delivers plural kinds of cause signals of crosstalk signals (a crosstalk signal contains a series of noises) included in reproduction signals obtained from the recording medium 82 to the memory means of plural channels (adaptive filter 25 contains a plurality of memory means), and wherein, in the reproducing system, there are obtained reproduction signals of plural channels (within equalizer 9) in which plural kinds of crosstalks (noises) included in reproduction signals obtained from the recording medium 82 have been cancelled every channel by the crosstalk cancellers of plural channels (Fig. 4; column 10, lines 52-56).

(e) with respect to Claim 5, the second distribution means 51 distributes and delivers recording signals 1 from a recording system for recording signals 1 with respect to the recording medium 82 to the memory means of plural channels (in adaptive filter 25) as cause signals of crosstalk

signals included in reproduction signals obtained from the recording medium 82 (Fig. 4), and wherein, in the reproducing system, there are obtained reproduction signals of plural channels (in equalizer 9) in which recording signal crosstalks included in reproduction signals obtained from the recording medium 82 have been cancelled every channel by the crosstalk cancellers of plural channels (Fig. 4; column 10; lines 52-56).

(f) with respect to Claim 6, the second distribution means 51 distributes and delivers power transmission signals (noises) from a power transmission system to the memory means of plural channels as cause signals of crosstalk signals included in reproduction signals obtained from the recording medium (column 1, lines 46-63), and wherein, in the reproducing system, there are obtained reproduction signals of plural channels in which power transmission signal crosstalks included in reproduction signals obtained from the recording medium have been cancelled every channel by the crosstalk cancellers of plural channels (Fig. 4; column 10, lines 52-56).

(g) with respect to Claim 8, the crosstalk canceller 25 is composed of an adaptive filter for generating a pseudo crosstalk signals from cause signals which is read out from the memory means and reproduction signals in which the crosstalk signals have been cancelled, and arithmetic means

8 for subtracting the pseudo crosstalk signals 26 from reproduction signals which is read out from the memory means to thereby generate reproduction signals in which the crosstalk signals have been cancelled (Fig. 4; column 10, lines 52-56; memory means are buffers/registers in the adaptive filter).

4. Method claim 9 is drawn to the method of using the corresponding apparatus claimed in claim 1. Therefore method claim 9 corresponds to apparatus claim 1 and is rejected for the same reason of anticipation as used above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Ohta (U.S. Patent 5,991,108) in view of Takayama et al. (U.S. Patent 6,421,196).

Ohta teaches a recording/reproducing apparatus very similar to that of the present invention. For example, Ohta teaches the following features:

(a) with respect to Claim 7, wherein the second distribution means 51 distributes and delivers signals from the recording/reproducing system to the memory means of plural channels as cause signals of crosstalk signals included in reproduction signals obtained from the recording medium, and wherein, in the reproducing system, there are obtained reproduction signals of plural channels in which signal crosstalks included in reproduction signals obtained from the recording medium have been cancelled every channel by the crosstalk cancellers of plural channels (Fig. 4;

column 10, lines 52-56; memory means are buffers/registers in the adaptive filter).

However, Ohta does not teach the following:

(a) with respect to Claim 7, the recording/reproducing apparatus comprising a RMIC (Remote Memory In Cassette) signal recording/reproducing system in which there is used a tape cassette within which there is mounted a remote memory chip comprising an antenna and a wireless communication system circuit, etc. along with a non-volatile memory for storing various management information relating to recording/reproducing operation, etc. with respect to a magnetic tape as the recording medium, and serving to execute recording/reproducing operation of data with respect to the non-volatile memory in the state where there is no contact with the tape cassette.

Takayama teaches the following:

(a) a recording/reproducing apparatus comprising a RMIC (Remote Memory In Cassette) signal recording/reproducing system in which there is used a tape cassette within which there is mounted a remote memory chip 4 comprising an antenna and a wireless communication system circuit, etc. along with a non-volatile memory 4 for storing various management information relating to recording/reproducing operation, etc. with respect to a magnetic tape as the recording medium, and serving to

execute recording/reproducing operation of data with respect to the non-volatile memory in the state where there is no contact with the tape cassette (Fig. 4; column 5, lines 13-23; column 6, lines 6-15); and

(b) information stored in the chip is recorded/reproduced by the read/reproduced head of the recording/reproducing apparatus (Figs. 1 and 14).

Barcode labels are used to identify a library of tape cassettes such as Oath's. To update the tape cassette's identification information, it would have been obvious to one of ordinary skill in the art to use a memory chip as a tape identification means such as Takayama's instead of a conventional barcode label, because Takayama's memory chip can be remotely read/write the tape's management information in order to achieve fast search and store more identification data.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Knudson (5,521,945) is pertinent because Knudson teaches a post processor in a recording/reproducing apparatus.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington, can be reached on (571) 272-4483.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

Kim-Kwok CHU

Examiner AU2627

July 26, 2007

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ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER